This project involves the modification of an existing Traffic Control Signal with interconnect at the intersection of MD 140 (Reisterstown Rd) and Franklin H.S./Reisterstown Shopping Center in Baltimore County. The existing signal heads shall be replaced with LED signal heads and existing pedestrian signal heads with Countdown pedestrian signals. MD 140 (Reisterstown Rd) is assumed to run a north-south direction.

- 1. The intersection is to operate in a NEMA six-phase, fully-actuated mode, with the MD 140 (Reisterstown Rd) approaches running concurrently. The Exclusive/Permissive left turn phase for the northbound and southbound approach of MD 140 (Reisterstown Rd) will continue to operate as normal. The Countdown pedestrian phase with audible pushbutton actuation shall be provided across the north and south legs of MD 140 (Reisterstown Rd) and east leg of Franklin H.S. The Countdown pedestrian phase with audible pushbuttons across Franklin H.S. shall be on recall. The side street approaches shall continue to operate in a split phase.
- 2. A full-traffic-actuated, existing eight-phase controller with proposed video interface, 2-wire Central Control Unit and all necessary equipment housed in a NEMA size "6" base-mounted cabinet shall be utilized at this intersection.
- SHA signal shop shall install APS central control unit into controller cabinet. The Contractor shall deliver the Central Control Unit and audible pushbuttons to the
- The Contractor shall be responsible for terminating all signal cables, excluding interconnect, to the appropriate terminals and shall properly
- All controller cabinet wiring will be performed by the S.H.A. Signal Shop Contact Mr. Ed Rodenhizer at (410) 787–7652 seventy—two hours in advance of intended work.
- 3. All underground and overhead utilities shown on these plans are schematic only and may not be complete. The Contractor shall be responsible for notifying Miss Utility prior to construction so that all utilities may be located in the field. If the Contractor perceives that a conflict between the utilities and the traffic signal will occur, the Contractor shall notify the Project Engineer immediately so that the conflict may be resolved.
- 4. APS will function as follows:
- FOR MD 140 (REISTERSTOWN RD)
 - When pedestrian locates and presses pushbutton for an extended time, the pushbutton unit will be "Wait to cross Reisterstown at High School and Shopping Center
 - When WALK phase begins, the message will be a rapid tick which will last for the duration of the WALK phase.

FOR FRANKLIN HIGH SCHOOL DWKY

- When pedestrian locates and presses pushbutton for an extended time, the pushbutton unit will be "Wait to cross High School Driveway at Reisterstown.
- b. When WALK phase begins, the message will be a rapid tick which will last for the duration of the WALK phase.

The contact persons for District #4 are as follows:

Assistant District Engineer - Traffic Phone: (410) 321-2781

Mr. Richard L. Daff. Sr. Chief. Traffic Operations Division Phone: (410) 787-7630

Mr. Andre Futrell

Assistant District Engineer - Maintenance Phone: (410) 321-2761

Mr. Mike Pasquaiello Assistant District Engineer – Utility Phone: (410) 321-2841

Mr. Ed Rodenhizer Chief, Traffic Signal Operations

410-787-7652 Mr. Sonny Bailey

Chief Sign Shop

410-787-7670

EQUIPMENT LIST

EQUIPMENT TO BE SUPPLIED BY S.H.A..

ITEM NO.	DESCRIPTION	QUANT	QUANTITY	
9570	Sheet aluminum signs to consist of: (ground mount)	22	SF	
	S1-1 "SCHOOL(symbolic)" sign. (36" x 36") ground mounted.	2	EA	
	W16-7P(L) "arrow (symbolic)" diagonal sign, (15" x 21") pole mounted.	2	EA	
9571	Sheet aluminum signs to consist of: (pole mount)	6	SF	
	Pedestrian education R10-3(1) (Note: Sign to read "PUSHBUTTON TO CROSS REISTERSTOWN ROAD")	4	EA	
	Pedestrian education R10-3(1) (Note: Sign to read "PUSHBUTTON TO CROSS Franklin High School Dwky.")	2	EA	

EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR DESCRIPTION QUANTITY Maintenance of traffic per 2 EA assignment. 6 C.Y. Test Pit Excavation Removal of existing permanent 685 L.F. pavement line markings any width 12" white preformed 865 L.F. thermoplastic pavement marking lines. 50 L.F. 24" white preformed thermoplastic pavement marking lines. Standard type A combination curb and gutter 12" gutter pan 8" depth. 200 L.F. 5" concrete sidewalk. 650 S.F. EA 12" LED signal head section. EΑ 2 wire Central Control unit 12 EA 8004 8" LED signal head section. EΑ Audible/tactile pedestrian pushbutton station & signs. Breakaway pedestal pole (5' & 10') EΑ LED 16" countdown pedestrian EΑ signal head. 27 EA LED signal head modules (any size) 1 EA Remove and dispose of equipment (per assignment) 200 L.F. Schedule 80 rigid PVC conduit up to 4" - trenched. 90 S.F. Detectable warning surface for curb ramps 650 L.F. Electrical cable -2 conductor (No. 14 AWG). 650 L.F. Electrical cable -5 conductor (No. 14 AWG). 750 L.F. Electrical cable -7 conductor (No. 14 AWG). Wood sign supports up to 4"x6". 60 L.F. 22 S.F. Install overhead or ground mounted sign.

EQUIPMENT TO BE REMOVED All removed signal materials are to become the property of the contractor.

DW DW DW DW PHASE 2 & 6 FL/DW | FL/DW | DW DW DW PED CLEAR / COUNTDOWN DW DW R DW DW D₩ DW 2 & 6 CHANGE DW PHASE 3 DW DW D₩ DW DW ÐW 3 CHANGE DW DW D₩ DW DW R R PHASE 4 DW DW DW DW ÐW DW 4 CHANGE R DW DW WK DW PHASE 3 ALT DW | FL/DW | FL/DW | DW | D₩ R DW PED CLEAR / COUNTDOWN DW DW DW DW DW D₩ 3 ALT CHANGE DW DW WK WK R PHASE 4 ALT FL/DW | FL/DW DW DW DW PED CLEAR / COUNTDOWN

PHASE CHART

4G-/R | **4**G-/R | R | **4**G-/R | **4**G-/R |

←G-/G **←**G-/G

PHASE 1 & 5

PHASE 1 & 6

1 & 6 CHANGE

PHASE 2 & 5

2 & 5 CHANGE

4 ALT CHANGE

FLASHING

OPERATION

CHANGES TO PHASES 1 & 6. 2 & 5 OR 2 & 6

←G-/G **←**G-/G

←Y-/Y **←**Y-/Y

R

FL/Y

FL/Y

FL/Y

FL/Y

10 11 12 13 14 15 16

שם שם

DW

DW

DW

שם (שם

FL/Y | FL/Y | FL/R | FL/R | FL/R | DARK | DARK | DARK | DARK | DARK | ARK | DARK | D

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D₩

WIRING DIAGRAM A.C.D.G.K.J.R EXISTING UNDERGROUND INTERCONNECT TO CARAWAY ROAD x 211703 i ELi EL B,F,L~ <u>-----i EL</u> EL -----L______ L______ UNDERGROUND INTERCONNECT TO FRANKLIN BLVD

WIRING KEY 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G) 5-CONDUCTOR ELECTRICAL CABLE (ND. 14 A.W.G) 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G) P - STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)

* - USE EXISTING WIRING

EL - EXISTING LOOP

ES - EXISTING OVERHEAD SERVICE

STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION

MD 140 (REISTERSTOWN ROAD) AND FRANKLIN HIGH SCHOOL

> REISTERSTOWN. MARYLAND GENERAL INFORMATION SHEET

STREET TRAFFIC STUDIES, LTD. 400 Crain Hwy.,N.W. Gien Burnie,MD 21061 Ph (410) 590-5500 Fax (410) 590-6637

CHECKED BY

SCALE NONE DATE 5/04/09 CONTRACT NO. XX4275185 DESIGNED BY JAMES ALLEN Jr. COUNTY BALTIMORE LOGMILE 03014008.17

SHEET NO.

DRAWN BY JAMES ALLEN Jr. TIMS NO. <u>J340</u> F.A.P. NO. TOD NO.

TS NO. 943E DRAWING NO. 2 OF 2

PLOTTEO: \$DATETIME\$ FILE: \$FILE\$